Remarks

Claim Amendments

The two remaining independent claims under rejection, namely claims 1 and 17, have been amended in two respects. First, both claims have been amended to describe the claimed perforation pattern more clearly in structural terms. Second, both claims have been amended to require that the divisible sections of the web as recited in amended claim 1 and the sheets as recited in amended claim 17 are advanced into the dispensing position in a substantially flat state.

The structural description of the claimed lines of perforation follows language in the subject specification and original claims and is clearly apparent from both the drawings and the text; see for example paragraphs 12 and 13 of the specification. The requirement for the sheets to be dispensed in a substantially flat state is shown in FIG. 1 in a side view where the sheets 12 are dispensed from a burster bar 76 and in FIGS. 3A - 3D in a plan view where the break starts in the center and proceeds to the two ends.

For consistency, claims 3, 6, and 7, which depend from independent claim 1 and claims 20 and 21, which depend from independent claim 17, have been amended to incorporate the replacement structural language of amended independent claims 1 and 17. Of these dependent claims, claims 7 and 21 have been amended to recite a relative numerical limitation requiring

fewer ties within the portions of the line of perforation closer to the center than the number of ties within the portions of the line of perforation closer to the edges. The specification makes clear that the pattern of ties can be affected by a number of variables including tie width, spacing, and number of ties. One such mention is found in paragraph 31 of the specification.

Independent claim 14 and its two dependents, claims 15 and 16, have been cancelled.

Obviousness Rejections

New obviousness rejections have been raised against various combinations of claims, all of which are based on US Patent 6,368,689 to Connor Sledge et al. in view of other references. Previously, applicants argued that the Connor Sledge et al. patent was not properly combinable with references like US Patent 5,863,372 to Fabel, whose production process involves the dispensing of perforated sheets in a flat state as do the systems of the subject invention. Connor Sledge et al. clearly state that their teaching is not relevant to perforated sheets that are dispensed in a flat state.

The rejection combining Connor Sledge et al. with Fabel has been withdrawn, and the new grounds of rejection rely on Connor Sledge et al. to disclose both the claimed web structure as well as the claimed perforation patterns. With this amendment, the remaining claims under rejection now require the divisible section of the web or the succession of sheets

comprising the web to be advanced into the dispensing position in a substantially flat state. Connor Sledge et al. does not disclose the dispensing of sheets in anything but a bunched state. In addition, the explicit teachings of Connor Sledge et al. would have precluded the modification of Connor Sledge et al.'s centerflow rolled product to one dispensed in a flat state. The difference is fundamental to Connor Sledge et al. Here is what Connor Sledge et al. say at column one lines 44-50:

"Thus, the dynamics of the separating or tearing process along the perforation line defined on a centerflow product is fundamentally different from that of conventional bath tissue or paper towels wherein the product is unwound from the circumference of the roll and is typically in a flat or straight state upon being separated by the consumer."

The dispensing system for the centerflow rolled products of Connor Sledge et al. cannot itself be modified in contradiction to its fundamental principles of operation to render the claimed invention obvious, and neither can Connor Sledge et al. be used to modify the perforation patterns of products like those of Fabel, which, according to Connor Sledge et al., involve fundamentally different separating or tearing processes along lines of perforation, to render the claimed invention obvious.

Claims 1, 4, 7, 14-17 and 20 are rejected as being obvious over the patent to Connor Sledge et al. in view of US Publication 2004/0211229 to

Ohyama. Much is credited to the disclosure of Connor Sledge et al., some of which is only apparent from the teaching of the subject invention. For example, Connor Sledge et al. is credited with disclosing a pattern of ties with varying perforation profiles having lines of weakness at the center of the web. The Examiner, however, appends to Connor Sledge et al.'s teaching that this would be "causing the web to burst at the center and then proceeds to rupture at the edges of the web." Connor Sledge et al. do not concern themselves with the order or path of bursting. Instead, Connor Sledge et al. measure defects such as tears or tails and streaming/roping. It is impermissible to ascribe teaching derived from the subject invention to the prior art. The order of bursting ties along lines of perforation separating sheets soaked in fluid and in a bunched condition is clearly problematic, so there does not appear to be any factual basis, absent the teaching of the subject invention, for making implicit assumptions about the bursting order of ties.

The Examiner also ascribes to Connor Sledge et al. the disclosure that "divisible sections of a web are advanced in sequence through a printer to a position at which the lines of perforation can be individually burst." Connor Sledge et al. make no suggestion for mounting a printer within their dispenser. The sheets are intended to be saturated within their dispenser and are unrolled in a bunched condition, so it is not clear how a printer could be practically used under such conditions. This appears to be another

example of the cited reference benefiting from the teaching of the subject invention, which in isolation is factual error, but overall, it suggests an impermissible application of hindsight.

In fairness, the Examiner acknowledges that Connor Sledge et al. do not teach a printer that prints information on the divisible sections of the web. Ohyama is cited for disclosing a printer for a wet towel dispenser of the type specifically distinguished by Connor Sledge et al. (i.e., paper towel dispensed in a flat state). The question here, however, is not whether Connor Sledge et al.'s centerflow product could be incorporated into Ohyama's dispenser, which is warned against by Connor Sledge et al., but whether Ohyama's printer could be incorporated into the dispenser of Connor Sledge et al. for printing onto their centerflow product.

Since the centerflow product of Connor Sledge et al. is advanced in a bunched condition, it is not clear how Ohyama et al.'s printer could be incorporated into Connor Sledge et al.'s dispenser. More than that, it is not clear what motivation Connor Sledge et al. would have for attempting such an impractical undertaking. The motivation cited by the Examiner is that Ohyama teaches that "it is advantageous to provide aesthetically pleasing design such as a store logo." An aesthetically pleasing design could be printed onto Connor Sledge et al.'s sheets prior to their loading into their portable dispenser without encountering the practical difficulties of printing

onto sheets advanced in a bunched condition - a difficulty for which Ohyama suggests no solution.

Various tertiary references including US Patent No. 5,428,433 to Kopp et al., US Patent No. 5,763,354 to Nagamoto, US Patent No. 6,139,932 to Kline, and US Patent No. 5,562,964 to Fabel are combined with Connor Sledge et al. and Ohyama to reach dependent claims. None of these tertiary references, however, challenge Connor Sledge et al.'s teaching that the perforation patterns proposed for centerflow products are not similarly applicable to sheets dispensed in a flat state or inform Connor Sledge et al. how their bunched sheets should be printed within their dispenser.

Kopp is cited for disclosing a printer mechanism with a break applicable to sheets dispensed in a flat condition. It is not clear how Kopp's printer or brake might work on sheets that are not in a flat state. Nagamoto is cited for teaching use of a thermal printhead. No teaching is cited that would lead one of ordinary skill to invest heat releasable inks in wet products or products intended for wiping. The printhead of Nagamoto is typical of thermal printheads in general and is shaped for printing on sheets in a flat state and not those of Connor Sledge et al. Kline is credited with teaching a pattern of ties specifically excluded by the claims, and its adoption by Connor Sledge et al, would move Connor Sledge et al. no closer to the claimed invention. Fabel is again cited in combination, but under these new grounds, Fabel's contribution is limited to the suggestion of a fan-folded stack as

found in the single dependent claim 22. Fabel cures none of the other deficiencies noted in the combination of Connor Sledge et al. and Ohyama.

Allowable Subject Matter

Claims 8-13 stand allowed. The Examiner is thanked for commenting favorably on these claims.

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With this amendment and its attendant explanations, reconsideration and allowance of the remaining claims under rejection, namely claims 1-7 and 17-22 is respectfully requested for passing on to issuance all of the remaining pending claims 1-13 and 17-22. For any questions on this response or the application, the Examiner is invited to contact applicants' representative at the telephone number given below.

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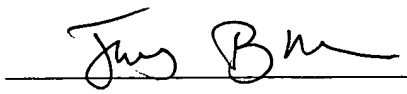
Respectfully submitted,



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